

REMARKS

Claims 1-10 are pending in the application. Claims 1-10 are rejected under 35 U.S.C. §102(b) as being anticipated by Bolton (U.S. Patent 4,343,037).

Applicant's claimed invention provides for generating a two-dimensional image by texture mapping to three-dimensional polygons including textures to be mapped to generate an overall pattern on a polygon, and modulation textures. Applicant's claims 1 and 6 recite the multiplying a texture by a modulation texture.

The features of applicant's claimed invention are supported by the original specification for example page 13 starting on line 4. As an example, the pixel value of the modulation texture is multiplied and applied to the pixel value of the texture.

Accordingly applicant's claimed invention allows for image generation of images that have the appropriate detail in a region near the viewpoint, whereas with the known texture mapping processing in the prior art a lower image resolution is seen near the viewpoint .

REJECTIONS UNDER 35 U.S.C. § 102

Bolton discloses a visual display system of a computer relating to a ground-based flight simulated showing a pilots' visual display. The generated image providing a rectangular raster-scanned display and perspective-transformed simulated texture surface.

In contrast to claims 1 and 6 Bolton does not recite multiplying a texture by a modulation texture.

The Office Action asserts that Bolton describes that the patterned surface is displayed in true perspective (col. 7, line 9), and that a corresponding output signal defining the brightness and color of the surface image at the defined sampling point is fed to modulate the display scan (col. 6, lines 30-32). Reconsideration is respectfully requested in view of the following arguments.

In col. 6, lines 30-32, Bolton teaches that the sampling point positions (i.e. the coordinates) of a surface detail store on the surface of an object are made to correspond to the sampling point positions on a perspective (a displayed surface) by perspective transformation, so that the surface detail store is addressed to read out the output signals defining the brightness and color on the surface image, the output signals allow the display to be modified.

Therefore, Bolton merely discloses the presence of the patterned surfaces and the modulation for the brightness and color on the surface image. Bolton does not disclose nor suggest the image generation method of this invention.

In particular in claim 1 applicant is multiplying a texture by a modulation texture. This feature is not taught by Bolton

With regard to claim 6 of the present application, the Office Action asserts, that Bolton discloses storing in memory a pattern and a memory hierarchy produced from the texture pattern with cut-off spatial frequencies (col. 17, line 8-46).

However applicant's claim 6 provides storing textures to be mapped to generate an overall pattern on a polygon, and modulation textures used to amplitude-modulate the patterns generated by mapping of the textures

It's also asserted Bolton discloses image generating means for providing a signal output representative of variable brightness (col. 7, lines 14-28) and modulating luminance value of a textured surface (col. 20, lines 30-34). However, it is respectfully submitted this is completely different from the present claimed invention.

In addition, claim 6 of the present application recites multiplying a texture by a modulation texture.

The textures are used to generate the overall pattern of a texture-mapped shape. Modulation textures are textures that are used for adding even higher-frequency components to textures. The pixel values that correspond to given vertices of the polygons are modulated by the modulation textures. Although a lowering of the image resolution was seen in ordinary texture mapping processing, the presently claimed invention allows images that have the appropriate detail in a region near the viewpoint to be generated.

On the contrary, Bolton only discloses the presence of the patterned surfaces and the modulation for the brightness and color on the surface image. Thus, Bolton fails to teach or reasonably suggest the claimed invention.


In this case, the cited art fails to teach the claimed invention as required by the MPEP for the reasons discussed above. For at least the foregoing reasons,

reconsideration is respectfully requested and it is respectfully requested that the Examiner withdraw the rejection under 35 U.S.C. § 102.

An earnest effort has been made to be fully responsive to the Examiner's objections. In view of the above amendments and remarks, it is believed that originally-filed claims 1-10, consisting of independent claims 1 and 6 and the claims dependent therefrom, are in condition for allowance. Passage of this case to allowance is earnestly solicited. However, if for any reason the Examiner should consider this application not to be in condition for allowance, she is respectfully requested to telephone the undersigned attorney at the number listed below prior to issuing a further Action.

Any fee due with this paper may be charged on Deposit Account 50-1290.

Respectfully submitted,


Brian S. Myers
Reg. No. 46,947

CUSTOMER NUMBER 026304

Katten Muchin Zavis Rosenman
575 Madison Avenue
New York, NY 10022-2585
(212) 940-8703
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